



ASSOCIATION OF ANTI-FIBRILLARIN ANTIBODIES WITH SKIN FIBROSIS IN SYSTEMIC SCLEROSIS

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Background. Antinuclear antibodies (ANA) represent a heterogeneous group of autoantibodies that play a central role in the immunopathogenesis of systemic sclerosis. Different ANA specificities are associated with distinct clinical phenotypes, disease progression patterns, and degrees of skin and internal organ involvement. Evaluation of specific ANA subsets may therefore provide important prognostic information, particularly with regard to the severity of skin fibrosis and systemic manifestations.

Objective. To evaluate the clinical significance of anti-fibrillar antibodies in patients with systemic sclerosis, with particular emphasis on the severity of skin fibrosis.

Materials and Methods. This study included 79 patients with systemic sclerosis treated at the Rheumatology Department of City Clinical Hospital No. 3 between 2022 and 2025. Diagnosis was established according to the 2013 EULAR/EUSTAR classification criteria. The mean patient age was 46.2 ± 5.8 years; 73 patients (92.4%) were female. The mean disease duration was 6.4 ± 3.7 years. Diffuse and limited systemic sclerosis were identified in 39 (49.4%) and 40 (50.6%) patients, respectively. All patients underwent standardized clinical and laboratory assessments. Anti-fibrillar antibodies were measured by enzyme-linked immunosorbent assay, and skin involvement was evaluated using the modified Rodnan skin score.

Results. Anti-fibrillar antibodies were detected in 21 patients (26.6%). AFA-positive patients demonstrated a significantly earlier disease onset, with a mean onset age of 34.2 ± 2.1 years. Among these patients, diffuse systemic sclerosis predominated, being identified in 14 cases (66.7%), whereas 7 patients (33.3%) had the limited subtype. In the diffuse AFA-positive subgroup, myositis was observed in 12 patients (85.7%), interstitial lung disease in 13 patients (92.9%), and Raynaud's phenomenon was present in all patients (100%). Assessment using the modified Rodnan skin score revealed significantly more severe skin fibrosis in AFA-positive patients with diffuse systemic sclerosis compared with AFA-negative patients (31.4 ± 4.5 vs. 19.8 ± 3.1).

Conclusion. Anti-fibrillar antibody positivity is associated with earlier disease onset, predominance of the diffuse systemic sclerosis subtype, increased frequency of internal organ involvement, and greater severity of skin fibrosis. These findings support the clinical and pathogenetic significance of anti-



fibrillarin antibodies as markers of an unfavorable disease course in systemic sclerosis.

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